VisualEyes: A forecasting boost for the energy industry

17 May 2016 - Lightning, strong winds, snow, freezing temperatures, fog and heavy rain are just some of the meteorological challenges facing those managing energy-production facilities, such as windfarms.

Forecasting favourable and unfavourable weather is vital for safety within the industry, as well as helping to improve economic efficiency.

To help the energy industry meet these challenges, the Met Office is today launching an enhanced version of VisualEyes™, an intuitive web-based weather monitoring and alerting system that helps energy asset managers, such as wind farm operators, manage the safety of on-site personnel and plan the most cost-efficient maintenance schedules.

The forecast information that VisualEyes™ provides is available in two distinct views. Users can alternate between a 'control room' view, which includes weather maps and alert summaries - and a 'weather chart' view - designed for the forward planning of maintenance activities.

VisualEyes™ offers many features, including *Smart Windows*, a flexible tool for quickly identifying both favourable and unfavourable weather combinations, probabilistic planning charts out to 14 days, and extensive lightning information. As well as helping to inform the management of maintenance schedules, contributing to cost reduction, it can be used to enhance revenues by identifying optimum times for power generation.

Developed in conjunction with the renewable-energy industry VisualEyes™ improves staff and contractor safety by informing site engineers about prevailing weather, such as lightning, high winds or snow, allowing them to make critical decisions about health and safety on-site. Personnel can stay up to date during changing weather conditions with email and SMS alerts and can also access the device-responsive system remotely with their tablet or smartphone.

The weather types covered include: observed lightning; forecast lightning; wind; wind gust; wind at height; gust at height; rain accumulation (six-hour and twelve-hour); snow accumulation; temperature (low and high temp warnings); and visibility.

Patrick Sachon, Head of Energy at the Met Office, said: "Our energy customers are working in sometimes extremely challenging environments, and forecasting good and bad weather is essential to the efficient and safe management of their operations.

"This vital software upgrade gives energy asset managers safety-critical weather information in a completely redesigned user interface. Importantly it also allows engineering managers and site personnel to make crucial on-the-ground decisions wherever they are. Using this valuable forecast information effectively is key to reducing project costs, increasing efficiency and most importantly reducing safety risks to staff and contractors."

VisualEyes™ is currently being used by many of the major utilities companies and the largest wind farms in the UK, including Scottish Power Renewables' Whitelee Wind Farm Control Centre and National Grid.

Last updated: 17 May 2016